

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) Semiconductor structure, comprising:

a buried first semiconductor layer of a first doping type;

a second semiconductor layer of the first doping type on the buried semiconductor layer, which is less doped than the buried first semiconductor layer;

a semiconductor area of a second doping type on the second semiconductor layer, so that a pn junction is formed between the semiconductor area and the second semiconductor layer; and

a recess present below the semiconductor area in the buried first semiconductor layer, which contains a semiconductor material of the first doping type to form a further semiconductor layer, which lies deeper in the substrate than the buried first semiconductor layer, such that the breakdown voltage across the pn junction is higher than if the recess were not provided.
2. (currently amended) Semiconductor structure according to claim 1, wherein the second semiconductor layer extends into the recess and the recess ~~further has another~~ also has the further semiconductor area of the first doping type, which is heavier doped than the second semiconductor layer.
3. (original) Semiconductor structure according to claim 2, wherein the further semiconductor area is doped equal or less than the buried first semiconductor layer.
4. (original) Semiconductor structure according to claim 1, wherein the recess fully penetrates the buried first semiconductor layer.

5. (original) Semiconductor structure according to claim 1, wherein the semiconductor area is a base, the first buried semiconductor layer a subcollector and the second semiconductor layer a collector of a bipolar transistor.

6. (currently amended) Semiconductor structure according to claim 5, wherein a portion of the buried first semiconductor layer further represents a subcollector for at least another bipolar transistor, wherein the recess is not formed in the portion of the buried first semiconductor layer ~~has no such recess for the~~ at least another bipolar transistor, that and the bipolar transistors transistor and the at least another bipolar transistor have different breakdown voltages.

7. (currently amended) Semiconductor structure according to claim 6, wherein the portion of the first buried semiconductor layer is formed to include a second recess so that the buried first semiconductor layer has recesses of different widths for the bipolar transistors.

8. (currently amended) Method for providing a semiconductor structure according claim 1, further comprising;

providing the buried first semiconductor layer with the recess formed therein;

generating the further semiconductor area in the recess;

introducing the semiconductor material of the first doping type into the recess, wherein after the introducing step, ~~of introducing the further~~ semiconductor material lies deeper in the substrate than the buried first semiconductor layer;

generating the second semiconductor layer on the buried first semiconductor layer, which is less doped than the buried first semiconductor layer;

generating the semiconductor area on the second semiconductor layer.

9. (original) Method according to claim 8, wherein the step of providing comprises:

depositing an implantation mask on a semiconductor substrate, wherein the implantation mask covers the recess;

implanting the buried first semiconductor layer by using the implantation mask.

10. (currently amended) Method according to claim 8, further comprising:
depositing a further implantation mask, which leaves a the recess exposed, after the step of providing; and

generating a the further semiconductor area in the recess by using the further implantation mask.

11. (currently amended) Method according to claim 8, further comprising:
depositing a further implantation mask, which leaves the recess exposed, after the step of generating the second semiconductor layer and

generating a the further semiconductor area in the recess by using the further implantation mask.

12. (new) A method comprising the steps of:
providing spaced apart first and second buried first semiconductor layers of a first doping type and a first doping value buried in a substrate, the first buried first semiconductor layer being formed to include a recess therein and acting as a region of a first bipolar transistor, the second buried first semiconductor layer acting as a region of a second bipolar transistor;

introducing a further semiconductor area of the first doping type in the recess,
wherein after the introducing step, the further semiconductor material lies deeper in the
substrate than the first buried first semiconductor layer;

generating a second semiconductor layer of the first doping type on each of the
first and second buried first semiconductor layers;

generating a semiconductor area of a second doping type on each of the second
semiconductor layers to form pn junctions;

wherein the breakdown voltage across the pn junction of the first bipolar
transistor is higher than if the recess were not present; and,

wherein the first and second buried first semiconductor layers are provided during
a single doping step.

13. (new) The method of claim 12 wherein the doping of the further
semiconductor layer is higher than the doping of the second semiconductor layer.

14. (new) The method of claim 13 wherein the doping of the further
semiconductor layer is not higher than the doping of the first buried first semiconductor layer.

15. (new) The method of claim 14 wherein the generating a second
semiconductor layer step includes generating a portion of the second semiconductor layer so that
it extends into the recess.

16. (new) The method of claim 15 wherein the second bipolar transistor has a
different breakdown voltage than the first bipolar transistor.

17. (new) The method of claim 16 wherein the provided second buried first
semiconductor layer contains no recess.

18. (new) The method of claim 16 wherein the provided second buried semiconductor layer is formed to include a recess having a different width than the recess in the provided first buried first semiconductor layer.

19. (new) The method of claim 16 wherein the first buried first semiconductor layer is a subcollector of the first bipolar transistor.

20. (new) The method of claim 19 wherein the second first buried semiconductor layer is a subcollector of the second bipolar transistor.